

011604

13281 U.S. PTO

17302 U.S. PTO  
10757937

011604

PTO/SB/05 (08-03)

Approved for use through 07/31/2006. OMB 0551-0032

U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE  
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.UTILITY  
PATENT APPLICATION  
TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.

9-15186-23US LB:lf

First Inventor

David Jonathan HALL

Title

N-TIME-GATE DATA-TYPE FOR TPSF-  
BASED OPTICAL IMAGING

Express Mail Label No.

## APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

ADDRESS TO:

Mail Stop Patent Application  
Commissioner for Patents  
P.O. Box 1450  
Alexandria VA 22313-1450

1. ☒ Fee Transmittal Form (e.g., PTO/SB/17)  
(Submit an original and a duplicate for fee processing)
2. ☐ Applicant claims small entity status.  
See 37 CFR 1.27.
3. ☒ Specification [Total Pages 21]  
(preferred arrangement set forth below)
  - Descriptive title of the invention
  - Cross Reference to Related Applications
  - Statement Regarding Fed sponsored R & D
  - Reference to sequence listing, a table, or a computer program listing appendix
  - Background of the invention
  - Brief Summary of the invention
  - Brief Description of the Drawings (if filed)
  - Detailed Description
  - Claim(s)
  - Abstract of the Disclosure
4. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets 5]
5. Oath or Declaration [Total Sheets 3]
  - a. ☐ Newly executed (original or copy)
  - b. ☐ Copy from a prior application (37 CFR 1.63(d))  
(for continuation/divisional with Box 18 completed)
  - i. ☐ DELETION OF INVENTOR(S)  
Signed statement attached deleting inventor(s) name in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
6. ☒ Application Data Sheet. See 37 CFR 1.76

7. ☐ CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
  - a. ☐ Computer Readable Form (CRF)
  - b. Specification Sequence Listing on:
    - i. ☐ CD-ROM or CD-R (2 copies); or
    - ii. ☐ Paper
  - c. ☐ Statements verifying identity of above copies

## ACCOMPANYING APPLICATION PARTS

9. ☐ Assignment Papers (cover sheet & document(s))
10. ☐ 37 CFR 3.73(b) Statement [ ] Power of Attorney  
(when there is an assignee)
11. ☐ English Translation Document (if applicable)
12. ☒ Information Disclosure [ ] Copies of IDS  
Statement (IDS)/PTO-1449 Citations
13. ☐ Preliminary Amendment
14. ☒ Return Receipt Postcard (MPEP 503)  
(Should be specifically itemized)
15. ☐ Certified Copy of Priority Document(s)  
(if foreign priority is claimed)
16. ☐ Nonpublication Request under 35 U.S.C. 122  
(b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
17. ☐ Other: .....

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in the first sentence of the specification following the title, or in an Application Data Sheet under 37 CFR 1.76:

☐ Continuation☐ Divisional☒ Continuation-in-part (CIP)of prior application No.: PCT/CA02/01067

Prior application information:

Examiner: \_\_\_\_\_

Art Unit: \_\_\_\_\_

For CONTINUATION OF DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

## 19. CORRESPONDENCE ADDRESS

☐ Customer Number:020988OR ☐ Correspondence address below

Name

Ogilvy Renault

Address

Suite 1600

1981 McGill College Avenue

City

Montreal

State

Quebec

Zip Code

H3A 2Y3

Country

Canada

Telephone

613-780-8661

Fax

613-230-6706

Name (Print/Type)

Wayne H. Yan

Registration No. (Attorney/Agent)

44,485

Signature

Date

January 15, 2004

This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete. Including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

# FEE TRANSMITTAL for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

☒ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$ 896

**Complete if Known**

Application Number	
Filing Date	
First Named Inventor	David Jonathan HALL
Examiner Name	
Art Unit	
Attorney Docket No.	9-15186-23US LB:lf

**METHOD OF PAYMENT (check all that apply)**
☐ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None
☒ Deposit Account:Deposit  
Account  
Number  
Deposit  
Account  
Name

Ogilvy Renault

19-5113

The Director is authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☒ Credit any overpayments☒ Charge any additional fee(s) or any underpayment of fee(s)☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.**FEE CALCULATION****1. BASIC FILING FEE**

Large Entity Fee Code	Large Entity Fee (\$)	Small Entity Fee Code	Small Entity Fee (\$)	Fee Description	Fee Paid
1001	770	2001	385	Utility filing fee	770
1002	340	2002	170	Design filing fee	
1003	530	2003	265	Plant filing fee	
1004	770	2004	385	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	
<b>SUBTOTAL (1)</b>					<b>(\$ 770)</b>

**2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE**

Total Claims	Extra Claims	Fee from below	Fee Paid
27	-20** = 7	X 18	= 126
Independent Claims	2	-3** = 0	X 0 = 0
Multiple Dependent		0	= 0

Large Entity Fee Code	Large Entity Fee (\$)	Small Entity Fee Code	Small Entity Fee (\$)	Fee Description
1202	18	2202	9	Claims in excess of 20
1201	86	2201	43	Independent claims in excess of 3
1203	290	2203	145	Multiple dependent claim, if not paid
1204	86	2204	43	** Reissue independent claims over original patent
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent

**SUBTOTAL (2)** (\$ 126

\*\*or number previously paid, if greater; For Reissues, see above

**FEE CALCULATION (continued)****3. ADDITIONAL FEES**

Large Entity Small Entity


Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for <i>ex parte</i> reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	420	2252	210	Extension for reply within second month	
1253	950	2253	475	Extension for reply within third month	
1254	1,480	2254	740	Extension for reply within fourth month	
1255	2,010	2255	1,005	Extension for reply within fifth month	
1401	330	2401	165	Notice of Appeal	
1402	330	2402	165	Filing a brief in support of an appeal	
1403	290	2403	145	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,330	2453	665	Petition to revive - unintentional	
1501	1,330	2501	665	Utility issue fee (or reissue)	
1502	480	2502	240	Design issue fee	
1503	640	2503	320	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	770	2809	385	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	770	2810	385	For each additional invention to be examined (37 CFR 1.129(b))	
1801	770	2801	385	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify)

\*Reduced by Basic Filing Fee Paid

**SUBTOTAL (3)** (\$ 0**SUBMITTED BY**

(Complete if applicable)

Name (Print/Type)	Wayne H. Yan	Registration No. (Attorney/Agent)	44,485	Telephone	(613) 780-8661
Signature		Date	January 15, 2004		

**WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.**

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

# PATENT APPLICATION FEE DETERMINATION RECORD

Application or Docket Number  
**9-15186-23US LB:lf**

## CLAIMS AS FILED - PART I

(Column 1)

(Column 2)

SMALL ENTITY

OR

OTHER THAN  
SMALL ENTITY

FOR	NUMBER FILED	NUMBER EXTRA
BASIC FEE (37 CFR 1.16(a))		
TOTAL CLAIMS (37 CFR 1.16(c))	27 minus 20 = *	7
INDEPENDENT CLAIMS (37 CFR 1.16(b))	minus 3 = *	0
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(d))		0

RATE	FEE
	\$
x \$	
x 0 =	0
+ =	
TOTAL	0

RATE	FEE
	\$ 770
x \$ 18 =	126
x =	
+ =	
TOTAL	896

\* If the difference in column 1 is less than zero, enter "0" in column 2

## CLAIMS AS AMENDED - PART II

(Column 1)

(Column 2)

(Column 3)

SMALL ENTITY

OR

OTHER THAN  
SMALL ENTITY

AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
Total (37 CFR 1.16(c))	* Minus **	=	
Independent (37 CFR 1.16(b))	* Minus ***	=	
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(d))			

RATE	ADDI- TIONAL FEE
x \$	
x =	
+ =	
TOTAL	0

RATE	ADDI- TIONAL FEE
x \$	
x =	
+ =	
TOTAL	0

(Column 1)

(Column 2)

(Column 3)

ADDIT. FEE

ADDIT. FEE

AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
Total (37 CFR 1.16(c))	* Minus **	=	
Independent (37 CFR 1.16(b))	* Minus ***	=	
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(d))			

RATE	ADDI- TIONAL FEE
x \$	
x =	
+ =	
TOTAL	0

RATE	ADDI- TIONAL FEE
x \$	
x =	
+ =	
TOTAL	0

(Column 1)

(Column 2)

(Column 3)

ADDIT. FEE

ADDIT. FEE

AMENDMENT C	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
Total (37 CFR 1.16(c))	* Minus **	=	
Independent (37 CFR 1.16(b))	* Minus ***	=	
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(d))			

RATE	ADDI- TIONAL FEE
x \$	
x =	
+ =	
TOTAL	0

RATE	ADDI- TIONAL FEE
x \$	
x =	
+ =	
TOTAL	0

\* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

\*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

\*\*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

# OGILVY RENAULT

January 15, 2004

## Mail Stop Patent Application

Commissioner for Patents  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450  
U.S.A.

Sir:

**Re: New United States Patent Application**  
**Title: N-TIME-GATE DATA-TYPE FOR TPSF-BASED OPTICAL IMAGING**  
**Inventor: David Jonathan HALL**  
**Assignee: ART, Advanced Research Technologies, Inc.**  
**Our File: 9-15186-23US LB:lf**

---

Transmitted herewith for filing is the patent application of:

**INVENTOR: David Jonathan HALL**

**TITLE OF THE INVENTION:**

**N-TIME-GATE DATA-TYPE FOR TPSF-BASED OPTICAL IMAGING**

The following documents are enclosed:

- a) Utility Patent Application Transmittal PTO/SB/05
- b) Fee Transmittal Form PTO/SB/17 (in duplicate) and Patent Application Fee Determination Record PTO/SB/06, covering:

Filing Fee \$770.00  
**Total Number of Claims: 27**  
Claims in excess of 20 (7@ \$18) \$126.00

---

**Barristers & Solicitors**  
**Patent & Trade-mark Agents**

1981 McGill College Avenue  
Suite 1600  
Montréal, Quebec  
Canada H3A 2Y3  
Montréal • Ottawa • Québec • Toronto • Vancouver • London (England)

Telephone (514) 845-7126  
Fax (514) 288-8389  
ogilvyrenault.com

Continuing the practices of  
**Meighen Demers**  
**Ogilvy Renault**  
**Swabey Ogilvy Renault**

**OGILVY  
RENAULT**

Total \$896.00

The Commissioner is hereby authorized to charge the above fees, as well as any additional fees which may be required, or credit any overpayment, to our Account No. 19-5113.

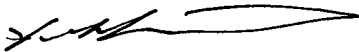
- c) Specification/Claims/Abstract
- d) Formal Drawings (5 Sheets - Figs. 1-6B)
- e) Declaration under 37 CFR 1.63 and Power of Attorney
- f) Patent Application Data Sheet
- g) Information Disclosure Statement with PTO Form 1449
- h) Return receipt postcard

The applicant/inventor qualify for **large** entity status.

Priority is claimed on U.S. application No. 60/305,081 filed July 16, 2001; PCT application No. PCT/CA02/01067 filed July 16, 2002; and PCT application No. PCT/CA03/00047 filed January 22, 2003..

Please note that the address of the agents for the applicant in this matter should be the Montreal address identified in the enclosed Power of Attorney. Correspondence may be directed to Wayne H. Yan at the Montreal address of Ogilvy Renault.

Respectfully submitted,



Wayne H. Yan  
Reg. No. 44,485  
Agent of Record

Encls.